

RECONFIGURABLE ARITHMETIC DEVICE AND ARITHMETIC SYSTEM
INCLUDING THAT ARITHMETIC DEVICE AND ADDRESS GENERATION
DEVICE AND INTERLEAVE DEVICE APPLICABLE TO ARITHMETIC
SYSTEM

ABSTRACT OF THE DISCLOSURE

An arithmetic device able to optimize the logic level, able to prevent an increase in the component data, able to prevent deterioration of the area efficiency as an integrated circuit, achieving an improvement in the operation efficiency, and achieving a reduction in the power consumption, provided with a first selection device for selecting coefficient inputs C0I to CkI in accordance with a control signal ASEL, a second selection device for selecting data inputs DOI to DmI in accordance with a control signal BSEL, a third selection device for selecting cascade inputs P0 to Pn-2 in accordance with a control signal CSEL, an ALU for receiving as input the output signals of the first to third selection devices and performing a logic operation in accordance with instructions of the control signals ALUMD etc., a MAC for receiving as input the output signals of the first to third selection devices and performing operation in

accordance with instructions of the control signal MACMD
etc., and a fourth selection device for selecting one of
the output signal of the ALU and the output signal of the
MAC in accordance with a control signal ESEL.